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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,056	08/20/2001	Christophe Person	LXGN-00103	6732

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EXAMINER

LY, CHEYNE D

ART UNIT	PAPER NUMBER
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1631

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/933,056	<b>Applicant(s)</b> PERSON, CHRISTOPHE	
	<b>Examiner</b> Cheyne D. Ly	<b>Art Unit</b> 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2004 and 31 March 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 26 and 28-56 is/are pending in the application.
- 4a) Of the above claim(s) 31-41, 47-49, 52, 53, 55 and 56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26, 28-30, 42-46, 50, 51 and 54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 26 and 28-56 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Applicants' arguments filed October 28, 2004 have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.
2. The cancellation of claims 1-25, 27, and 57-60, and the withdrawal of claims 31-41, 47-49, 52, 53, 55 and 56 have been acknowledged.
3. Claims 26, 28-30, 42-46, 50, 51, and 54, species: Animal DNA/RNA; computer-readable encoding medium, GenBank public domain sequence database; and BLAST, are examined on the merits.

### **CLAIM REJECTIONS - 35 USC § 102**

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
5. Claims 26, 28-30, 42-46, 50, 51, and 54 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by NCBI News (1996).
6. This rejection is maintained with respect to claims 26, 28-30, 42-46, 50, 51, and 54, as recited in the previous office action mailed September 08, 2003.

**RESPONSE TO ARGUMENTS**

7. Applicant argues the “cited reference fails to teach at least one of the key inventive points of the present invention” because the cited art deals with taking an “unknown sequence and querying it against a known sequence...” Applicant’s argument is not persuasive because claim 26 recites “selecting a query sequence from a redundant database.” NCBI News discloses a method of generating the UniGene database part of GenBank, which is a historical archive with a large degree of redundancy. A sequence (e.g. contiguous and noncontiguous genomic sequences, mRNA and EST sequences) maybe submitted by multiple labs. All ESTs are screened against existing functionally cloned GenBank entries to eliminate redundancies. New submissions that do not match any sequences in the UniGene set are considered new human genes and are organized into unique clusters of 1 EST (page 4, lines 13-30). Claim 26 does not limit the “query sequence” to be of “unknown” or “unknown.” The cited disclosure anticipates the selecting step because the EST sequence is selected from GenBank, which is a historical archive with a large degree of redundancy.

8. It is noted that claim 26, line 5, recites the limitation of “masking...with known repeat sequences.” UniGene Build Procedure (NCBI) discloses ESTs are screened for contaminants, repeats, and low complexity sequence (masking with known repeats) and the screened sequence must contain at least 100 informative base pairs to be a candidate for entry into the UniGene database (UniGene Build Procedure page 1, lines 10-15). New submissions that do not match any sequences in the UniGene set are considered new human genes and are organized into unique clusters of 1 EST (unique database) (page 4, lines 13-30)

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9. Further, Applicant argues that the claimed invention deals with “hoardes” of random snippets of DNA sequence information..., Applicant’s argument is not persuasive because the claims do not recite the argued limitations. For example, claim 26 does not recite the following argued limitations: “random snippets of DNA”, “contigs”, “mask novel repetitive elements”, “reassemble the data via an iterative learning process...”, “remembers” to delete..., and “assembly (by adding them to the known repeat/masking database.” The prior art anticipates the claimed invention as recited by claims 26, 28-30, 42-46, 50, 51, and 54.

#### **BASIS FOR REJECTION**

10. The inclusion of UniGene Build Procedure (NCBI) is not used as prior art but only to expand on the UniGene screening procedure as discussed below. UniGene Build Procedure (NCBI) discloses ESTs are screened for contaminants, repeats, and low complexity sequence (masking) and the screened sequence must contain at least 100 informative base pairs to be a candidate for entry into the UniGene database (UniGene Build Procedure page 1, lines 10-15). NCBI News discloses a method of generating the UniGene database part of GenBank, which is a historical archive with a large degree of redundancy. A sequence (e.g. contiguous and noncontiguous genomic sequences, mRNA and EST sequences) maybe submitted by multiple labs. All ESTs are screened against existing functionally cloned GenBank entries to eliminate redundancies. New submissions that do not match any sequences in the UniGene set are considered new human genes and are organized into unique clusters of 1 EST (page 4, lines 13-30), as in instant claim 26 and 28-30.

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11. The inclusion of GenBank (Benson et al.) is not used as prior art but only to expand on the sequence database, GenBank, as discussed above. GenBank is a sequence database incorporates DNA sequences from all available public sources, which is accessible through the Internet (Abstract etc.) or CD-ROM (page 5, CD-ROM §), as in instant claims 42-46.

12. GenBank comprises BLAST family of programs (Abstract etc.), as in instant claims 50 and 51.

13. The inclusion of Basic Local Alignment Search Tool (Altschul et al.) is not used as prior art but only to expand on the BLAST program as discussed above. Altschul et al. discloses the use of a scoring matrix for the measuring of sequence similarities (page 404, column 1, lines 26-28), as in instant claim 54.

### CONCLUSION

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

15. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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16. This application contains claims 31-41, 47-49, 52, 53, 55 and 56 drawn to an invention nonelected, filed July 22, 2003. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

17. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547. The USPTO's official fax number is (571) 273-8300.

18. Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

19. For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

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20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Dune Ly, whose telephone number is (571) 272-0716. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

21. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel, Ph.D., can be reached on (571) 272-0718.

C. Dune Ly / *ox*  
6/9/05

*Ardin H. Marschel 6/12/05*  
**ARDIN H. MARSCHEL**  
**SUPERVISORY PATENT EXAMINER**